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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,289	12/09/2003	Hidefumi Niki	542-012.005	4923

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EXAMINER

LAVARIAS, ARNEL C

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/731,289

Applicant(s)

NIKI ET AL.

Examiner

Arnel C. Lavarias

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/18/06 has been entered.

### ***Response to Amendment***

2. The amendments to Claim 1 in the submission dated 5/18/06 are acknowledged and accepted.

### ***Response to Arguments***

3. The Applicants' arguments filed 5/18/06 have been fully considered but they are not persuasive.
4. The Applicants argue that, with respect to newly amended Claim 1, as well as Claim 3 which depends on Claim 1, Suzuki and Teijin Limited fail to teach or reasonably suggest winding up a PVA film around a cylindrical core tube, or the polarizing film being used in LCD devices. The Examiner respectfully disagrees. It is noted that Suzuki specifically discloses various materials that the film may be made from, and included in

that list is polyvinyl alcohol (PVA) (See col. 3, lines 9-32). The suggestion to utilize PVA as a film material is present, even if no specific example is provided in the 'Examples' section of the disclosure of Suzuki. In addition, it is noted that features upon which applicant relies (i.e., hygroscopicity of the films, the polarizing film being used in LCD devices) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

5. The Applicants further argue that, with respect to newly amended Claim 1, as well as Claim 3 which depends on Claim 1, the teachings of Suzuki and Teijin Limited do not appear to be combinable to come up with the invention recited in the claims. However, it is noted that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In the instant case, Suzuki already discloses the use of a core tube for rolling a film material. Further, Suzuki discloses that the film material may include polyvinyl alcohol, as well as other materials such as polyethylene terephthalate (PET). Teijin Limited, being in the same field of endeavor, was relied upon to evidence the use of core

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rolls for winding film materials, where the core roll exhibits various properties as claimed.

6. Claims 1, 3 are rejected as follows.

### ***Specification***

7. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. *The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.* The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

8. The abstract of the disclosure is objected to because of the following informalities:

Abstract, line 1- 'comprising' should read 'including'.

Correction is required. See MPEP § 608.01(b).

9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

10. Claims 1, 3 are objected to because of the following informalities:

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Claim 1 includes the abbreviation "S" in line 4 (i.e. the unit 'S' used for surface roughness). It is noted that the unit 'S' is not a standardized unit for surface roughness, and Examiner is only aware of conventional units (such as microns, nm, mm, microinch) that are used to identify a unit of surface roughness. The full, unabbreviated word or phrase must be included the first time an abbreviation is used. Claim 3 is dependent on Claim 1, and hence inherits the deficiencies of Claim 1.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (U.S. Patent No. 5762289), of record, in view of Teijin Limited (EP 1162227 A1), of record.

Regarding Claim 1, Suzuki discloses a cylindrical core tube for winding plastic films wherein the core is formed of a fiber reinforced plastic or metal (See col. 2, lines 14-36), and wherein the plastic film is polyethylene terephthalate (PET) or polyvinyl alcohol (PVA) (See col. 3, lines 22-26). Thus, although not set forth in one of the examples, Suzuki at least suggests a roll of a PVA film obtained by winding up the PVA around a cylindrical core tube. The recitation of the film as having been formed from a solution of PVA resin is directed to the manner in which the film is formed, rather than to the structure of the film itself. It is not clear how the manner in which the film is structurally

different from the film of Suzuki. In addition, Suzuki discloses the thickness of the PVA film being in the range of 20 to 100 microns (See col. 3, lines 9-22). Thus, Suzuki discloses the roll of PVA film substantially as claimed. However, Suzuki does not explicitly disclose the metallic material of the core tube having a surface roughness of at most 100 S, a roundness of 0.01 to 0.2 mm, and a cylindricity of 0.01 to 1 mm.

In the same field of endeavor, Teijin Limited discloses a roll of polyester obtained by winding up polyester film such as PET (See Paragraph 0011) around a cylindrical core which may be of fiber reinforced plastic (See Paragraph 0022). Teijin Limited discloses that the surface roughness (Ra) of the core should not exceed 0.6 microns, or the surface roughness of the core will be transferred to the wound film. It would have been obvious to one having ordinary skill in the art to provide the metallic core of Suzuki, with a surface roughness (Ra) not exceeding 0.6 microns, in the interest of preventing the core surface roughness from being imparted to the film, as suggested by Teijin Limited. As stated above, Suzuki teaches the equivalence of metal cores with fiber reinforced plastic cores for the purpose of winding PET, and teaches the equivalence of PVA and PET as wound films. The Examiner believes that a surface roughness (Ra) not exceeding 0.6 microns corresponds to a surface roughness of approximately 12.5 S to 25 S. Teijin Limited further suggests a maximum difference between the core maximum and minimum diameter of 0.2 mm (See Paragraph 0021). As such, the Examiner believes that the corresponding "roundedness" and "cylindricity" (as used in the present specification) necessarily fall within the claimed range.

With regard to Claim 3, the film widths of Suzuki range from about 0.5 m to 3.0 m (as would correspond to the core length), and an exemplary outside diameter is given as 300 mm. Teijin Limited suggests roll diameters of 100-400 mm (See Paragraph 0019).

Given the overlap of the ranges disclosed in the prior art with those recited in the claims, it appears that, barring any unexpectedly improved result arising from selection of core outer diameter and core length, one of ordinary skill would have arrived at values lying within the recited ranges through only routine experimentation and optimization.

### *Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP 2001310435 A to Hase et al.

Hase et al. is being cited to further evidence a conventional core tube for rolling a laminated sheet (See specifically Abstract).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Arnel C. Lavarias  
Primary Examiner  
Group Art Unit 2872  
7/27/06